

Table 1.

Alignment of human Slit-1 (SEQ ID NO:02), human Slit-2 (SEQ ID NOS:03-06), Drosophila Slit-1 (SEQ ID NO:07), *C. elegans* Slit-1 (SEQ ID NOS:08-09), mouse Slit-2 (SEQ ID NOS:10-11) and mouse Slit-1 (SEQ ID NOS:12-14).

2 N P I C D C N L Q W L A Q I N L Q K N I E T S G A R C E Q P K R L R K K K F A CE-Slit
 452 N P F I C D C N L R W L A D Y L H K N P I E T S G A R C E S P K R M H R R R I E D-Slit
 434 N P F I C D C H L K W L A D Y L H T N P I E T S G A R C T S P R R L A N K R I G H-Slit1

42 T L P P N K F K C K G S E S F V S M Y A D S C F I D S I C P T Q C D C Y G T T V CE-Slit
 492 S L R E E K F K C S - W G E L R M K L S G E C R M D S D C P A M C H C E G T T V D-Slit
 474 Q I K S K K F R C S G T E D Y R S K L S G D C F A D L A C P E K C R C E G T T V H-Slit1

82 D C N K R G L N T I P T S I P R F A T Q L L S G N N I S T V D L N S N I H V L CE-Slit
 531 D C T G R R L K E I P R D I P L H T T E L L L N D N E L G R I S S D G L F G R L D-Slit
 514 D C S N Q K L N K I P E H I P Q Y T A E L R L N N N E F T V L E A T G I F K K L H-Slit1

122 E N L E X L D L S N N H I T F I N D K S F E K L S K L R E L X L N D - - - - - CE-Slit
 571 P H L V K L E L K R N Q L T G I E P N A F E G A S H I Q E L Q L G E N K I K E I D-Slit
 554 P Q L R K I N F S N N K I T D I E E G A F E G A S G V N E I L T S N R L E N V H-Slit1
 1 - - - - - E G A F N G A A S V Q E L M L T G N Q L E T V H-Slit2

611 S N K M F - - - - - L G L H Q L K T L N D-Slit
 594 Q H K M F K G - L E S L K T L M L R S N R I T C V G N D S F I G L S S V R L L S H-Slit1
 24 H G R G F R G G L S G L K T L M L R S N L I G C V S N D T F A G L S S V R L L S H-Slit2

626 L Y D N Q I S C V M P G S F E H L I N S L T S L N L A S N P F N C N C H L A W - F D-Slit
 633 L Y D N Q I T T V A P G A F D T L H S L S T L N L L A N P F N C N C Y L A W - L H-Slit1
 64 L Y D N R I T T I T P G A F T T L V S L S T I N L L S N P F N C N C H L G A G L H-Slit2

665 A E C V R K K S L N G G A A R C G A P S K V R D V Q I K D L P H S E F K C S S E D-Slit
 672 G E W L R K K R I V T G N P R C Q K P Y F L K E I P I Q D V A I Q D F T C D D G H-Slit1
 104 G K W L R K R R I V S G N P R C Q K P F F L K E I P I Q G V G H P G I H-Slit2

1 - - - - - S N K N L T S F P S R I P F D CE-Slit
 705 N S E - G C L G D G Y C P P S C T C T G T V V A C S R N Q L K E I P R G I P A E D-Slit
 712 N D D N S C S P L S R C P T E C T C L D T V V R C S N K G L K V L P K G I P R D H-Slit1

16 T T E L Y L D A N Y I N E I P A H D L N R L Y S L T K L D L S H N R L I S L E N CE-Slit
 744 T S E L Y L E S N E I E Q I H Y E R I R H L R S L T R L D L S N N Q I T I L S N D-Slit
 752 V T E L Y L D G N Q F T L V P K E - L S N Y K H L T L I D L S N N R I S T L S N H-Slit1

56 N T F S N L T R L S T L I I S Y N K L R C L Q P L A F N G L N A L R I I L S L H G CE-Slit
 784 Y T F A N L T K L S T L I I S Y N K L Q C L Q R H A L S G L N N L R V V S L H G D-Slit
 791 Q S F S N M T Q L L T L I L S Y N R L R C I P P R T F D G L K S L R L L S L H G H-Slit1

96 N D I S F I L P Q S A F S N L T S I T H I A V G S N S L Y C D C N M A W F S K W I CE-Slit
 824 N R I S M L P E G S F E D L K S L T H I A L G S N P L Y C D C G L K W F S D W I D-Slit
 831 N D I S V V P E G A F N D L S A L S H L A I G A N P L Y C D C N M Q W L S D W V H-Slit1

136 K S K F I E A G I A R C E Y P N T V S N Q L L L T A Q P Y Q F T C D S K V P T K CE-Slit
 864 K L D Y V E P G I A R C A E P E Q M K D K L I L S T P S S S F V C R G R V R N D D-Slit
 871 K S E Y K E P G I A R C A G P G E M A D K L L T T P S K K F T C Q G P V D V N H-Slit1

176 LATKCDLCLNSPCKNNAIICEETTSSSRKYTCNCCTPGFYGVHCE-Slit
 904 ILAKCNACFEQPCQONQAQCVALPQREYQCLCQPGYHGHCKD-Slit
 911 ILAKCNPCLSNPCKNDGTCNSDPVDFYRCTCPYGFKGQDCH-Slit1

216 ENQIDACYGSPCLNNATCKV - - AQAGRNFNCYCNKGFEYDCE-Slit
 944 EFMIDACYGNPCCRNNATCTV - - LEEGRFSCQCAPGTYTGA RD-Slit
 951 DVPPIHACISNPCKHGGTCHLKEGEEDGFWCICADGFEGENH-Slit1

254 C E K N I D D C V N S - K C E N G G K C V D L V R F C S E E L K N F Q S F Q I N CE-Slit
 982 C E T N I D D C L G E I K C Q N N A T C I D - - - - - G V E D-Slit
 991 C E V N V D D C - E D N D C E N N S T C V D - - - - - G I N H-Slit1

293 S Y R C D C P M E Y E G K H C E D K L E Y C T K K L N P C E N N G K C I P I N G CE-Slit
 1007 S Y K C E C Q P G F S G E F C D T K I Q F C S P E F N P C A N G A K C M D H F T D-Slit
 1015 N Y T C L C P P E Y T G E L C E E K L D F C A Q D L N P C Q H D S K C I L T P K H-Slit1
 D P L P V M-Slit2

333 S Y S C M C S P G F T G N N C E T N I D D C K N V E C Q N G G S C V D G I L S Y CE-Slit
 1047 H Y S C D C Q A G F H G T N C T D N I D D C Q N H M C Q N G G T C V D G I N D Y D-Slit
 1055 G F K C D C T P G Y V G E H C D I D F D D C O D N K C K N G A H C T D A V N G Y H-Slit1
 1 - - - - - N N D D C V G H K C R H G A Q C V D E V N G Y M-Slit1
 1 W P R C E C M P G Y A G D N C S E N Q D D C R D H R C Q N G A Q C M D E V N S Y H-Slit2
 6 H H R C E C M L G Y T G D N C S E N Q D D C K D H K C Q N G A Q C V D E V N S Y M-Slit2

373 D C L C R P G Y A G Q Y C E I P P M M D M E Y Q K T D A C Q Q S A C G Q G - E C CE-Slit
 1087 Q C R C P D D Y T G K Y C E G H N M I S M M Y P O T S P C Q N H E C K H G V - C D-Slit
 1095 T C I C P E G Y S G L F C E F S P - - P M V L P R T S P C D N F D C Q N G A Q C H-Slit1
 24 T C I C P Q G F S G L F C E H P P - - P M V L L Q T S P C D Q Y E C Q N G A Q C M-Slit1
 41 S C L C A E G Y S G Q L C E I P P - - H L P A P K - S P C E G T E C Q N G A N C H-Slit2
 46 A C L C V E G Y S G Q L C E I P P - - - A P R - S S C E G T E C Q N G A N C M-Slit2

412 V A S Q N - S S D F T C K C H E G F S G P S C D R Q M S V G F K N P G A Y L A L CE-Slit
 1126 F Q P N A Q G S D Y L C R C H P G Y T G K W C E Y L T S I S F V H N N S F V E L D-Slit
 1133 I V R I N E P - - - I C Q C L P G Y Q G E K C E K L V S V N F I N K E S Y L O I H-Slit1
 62 I V V Q Q E P - - - T C R C P P G F A G P R C E K L I T V N F V G K D S Y V E L M-Slit1
 78 V D Q G N R P - - - V C Q C L P G F G G P E C E K L L S V N F V D R D T Y L Q F H-Slit2
 80 V D Q G S R P - - - V C Q C L P G F G G P E C E K L L S V N F V D R D T Y L Q F M-Slit2

451 D P L A S - - D G T I T M T L R T T S K I G I L L Y Y G D D H F V S A E L Y D G CE-Slit
 1166 E P L R T R P E A N V T I V F S S A E Q N G I L M Y D G Q D A H L A V E L F N G D-Slit
 1170 P S A K V R P Q T N I T L Q I A T D E D S G I L L Y K G D K D H I A V E L Y R G H-Slit1
 99 A S A K V R - - - - - M-Slit1
 115 T D L Q N W X R X N I T L Q V F T A E D N G I L L Y N G G N D H I A V X L Y X G H-Slit2
 117 T D L Q N W P R A N I T L Q V S T A E D N G I L L Y N G D N D H I A V E L Y M-Slit2

489 R V K L V Y Y I G N F P A S H M Y S S V K V N D G L P H R I S I R T S E R K C F CE-Slit
 1206 R I R V S Y D V G N H P V S T M Y S F E M V A D G K Y H A V E L L A I K K N F T D-Slit
 1210 R V R A S Y D T G S H P A S A I Y S V E T I N D G N F H I V E L L A L D Q S L S H-Slit1
 155 H V R F S Y - - - - - H-Slit2

529 L Q I D K N P V Q I V E N S G K S D Q L I T K G K E M L Y I G G L P I E K S Q D CE-Slit
 1246 L R V D R G L A R S I I N E G S N D Y L - - K L T T P M F L G G L P V D P A Q Q D-Slit
 1250 L S V D G G N P K I I T N L S K I Q S T L - - N F D S P L Y V G G M P G K S N V A H-Slit1
 1 I L - - - - - D V A M-Slit1

Table 2.

Alignment of human Slit-1 (SEQ ID NO:02) and Drosophila Slit-1 (SEQ ID NO:07)

1	M A A P S R T T L M P P P F R [L] Q [L] R [L] - [L] I [L] P I L L L L R H D A V H A E P Y D-Slit	
1	M R G V G W Q - - - - M L S L S L G L V L A I L - - - - - - - - H-Slit1	1030
40	S G G F G S S A V S S G G L G S V G I H I P G G G V G V I T E A R [C] P R V [C] S C D-Slit	
21	- - - - - - - - - - - - - - N K V A P Q A C P A Q C S C H-Slit1	
80	T [G] L N [V] D C S H R G L T [S] V P R K I S A D V E R L E L Q G N N L T V I Y E T D D-Slit	
35	S G S T V D C H G L A L R S V P R N I P R N T E R L D L N G N N I T R I T K T D H-Slit1	
120	F Q R L T K L R M L Q L T D N Q I H T I E R N S F Q D L V S L E R L - - - - D-Slit	
75	F A G L R H L R V L Q L M E N K I S T I E R G A F Q D L K E L E R L R L N R N H H-Slit1	
154	- - - - - - - - - - - - - - D I S N N V I T T V G R R V F K G A Q S L R D-Slit	
115	L Q L F P E L L F L G T A K L Y R L D L S E N Q I Q A I P R K A F R G A V D I K H-Slit1	
176	S L Q L D N N Q I T C L D E H A F K G L V E L E I L T L N N N N L T S L P H N I D-Slit	
155	N L Q L D Y N Q I S C I E D G A F R A L R D L E V L T L N N N N I T R L S V A S H-Slit1	
216	F G G L G R L R A L R L S D N P F A C C D C H L S W L S R F L R S A T R L A P Y T D-Slit	
195	F N H M P K L R T F R L H S N N L Y C D C H L A W L S D W L R K R P R V G L Y T H-Slit1	
256	R C Q S P S Q L K G Q N V A D L H D Q E F K C S G L T E - H A P M - - E C G A D-Slit	
235	Q C M G P S H L R G H N V A E V Q K R E F V C S D E E E G H Q S F M A P S C S V H-Slit1	
292	E N S C P H P C R C A D G I V D C R E K S L T S V P V T L P D D T T D V R L E Q D-Slit	
275	L H - C P A A C T C S N N I V D C R G K G L T E I P T N L P E T I T E I R L E Q H-Slit1	
332	N F I T E L P P K S F S S F R R L R R I D L S N N N I S R I A H D A L S G L K Q D-Slit	
314	N T I K V I P P G A F S P Y K K L R R I D L S N N Q I S E L A P D A F Q G L R S H-Slit1	
372	L T T L V L Y G N K I K D L P S G V F K G L G S L R L L L L N A N E I S C I R K D-Slit	
354	L N S L V L Y G N K I T E L P K S L F E G L F S L Q L L L L N A N K I N C L R V H-Slit1	
412	D A F R D L H S L S L L S L Y D N N I Q S L A N G T F D A M K S M K T V H L A K D-Slit	
394	D A F Q D L H N L N L L S L Y D N K L Q T I A K G T F S P L R A I Q T M H L A Q H-Slit1	
452	N P F I C D C N L R W L A D Y L H K N P I E T S G A R C E S P K R M H R R R I E D-Slit	
434	N P F I C D C H L K W L A D Y L H T N P I E T S G A R C T S P R R L A N K R I G H-Slit1	
492	S L R E E K F K C S - W G E L R M K L S G E C R M D S D C P A M C H C E G T T V D-Slit	
474	Q I K S K K F R C S G T E D Y R S K L S G D C F A D L A C P E K C R C E G T T V H-Slit1	
531	D C T G R R L K E I P R D I P L H T T E L L L N D N E L G R I S S D G L F G R L D-Slit	
514	D C S N Q K L N K I P E H I P Q Y T A E L R L N N N E F T V L E A T G I F K K L H-Slit1	

571	P	H	L	V	K	L	E	L	K	R	N	Q	L	T	G	I	E	P	N	A	F	E	G	A	S	H	I	Q	E	L	Q	L	G	E	N	K	I	K	E	I	D	-Slit	
554	P	Q	L	R	K	I	N	F	S	N	N	K	I	T	D	I	E	E	G	A	F	E	G	A	S	G	V	N	E	I	L	L	T	S	N	R	L	E	N	V	H	-Slit1	
611	S	N	K	M	F	L	G	L	H	Q	L	K	T	L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	N	L	D	-Slit							
594	Q	H	K	M	F	K	G	L	E	S	L	K	T	L	M	L	R	S	N	R	I	T	C	V	G	N	D	S	F	I	G	L	S	S	V	R	L	L	S	L	H	-Slit1	
627	Y	D	N	Q	I	S	C	V	M	P	G	S	F	E	H	L	N	S	L	T	S	S	L	N	L	A	S	N	P	F	N	C	N	C	H	L	A	W	F	A	E	D	-Slit
634	Y	D	N	Q	I	T	T	V	A	P	G	A	F	D	T	L	H	S	L	S	T	L	N	L	A	N	P	F	N	C	N	C	Y	L	A	W	L	G	E	H	-Slit1		
667	C	V	R	K	K	S	L	N	G	G	A	A	R	C	G	A	P	S	K	V	R	D	V	Q	I	K	D	L	P	H	S	E	F	K	C	S	S	E	N	S	D	-Slit	
674	W	L	R	K	K	R	I	V	T	G	N	P	R	C	Q	K	P	Y	F	L	K	E	I	P	I	Q	D	V	A	I	Q	D	F	T	C	D	D	G	N	D	H	-Slit1	
707	E	-	G	C	L	G	D	G	Y	C	P	P	S	S	C	T	C	T	G	T	V	V	A	C	S	R	N	Q	L	K	E	I	P	R	G	I	P	A	E	T	S	D	-Slit
714	D	N	S	C	S	P	L	S	R	C	P	T	E	E	C	T	C	L	D	T	V	V	R	C	S	N	K	G	L	K	V	L	P	K	G	I	P	R	D	V	T	H	-Slit1
746	E	L	Y	L	E	S	N	E	I	E	Q	I	H	Y	E	R	I	R	H	L	R	S	L	T	R	L	D	L	S	N	N	Q	I	T	I	L	S	N	Y	T	D	-Slit	
754	E	L	Y	L	D	G	N	Q	F	T	L	V	P	K	E	-	L	S	N	Y	K	H	L	T	L	I	D	L	S	N	N	R	I	S	T	L	S	N	Q	S	H	-Slit1	
786	F	A	N	L	T	K	L	S	T	L	I	I	S	Y	N	K	L	Q	C	L	Q	R	H	A	L	S	G	L	N	N	L	R	V	V	S	L	H	G	N	R	D	-Slit	
793	F	S	N	M	T	Q	L	L	T	L	I	I	S	Y	N	R	L	R	C	I	P	P	R	T	F	D	G	L	K	S	L	R	L	L	S	L	H	G	N	D	H	-Slit1	
826	I	S	M	L	P	E	G	S	F	E	D	L	K	S	L	T	H	I	A	L	G	S	N	P	L	Y	C	D	G	L	K	W	F	S	D	W	I	K	L	D	-Slit		
833	I	S	V	V	P	E	G	A	F	N	D	L	S	A	L	S	H	L	A	I	G	A	N	P	L	Y	C	D	C	N	M	Q	W	L	S	D	W	V	K	S	H	-Slit1	
866	D	Y	V	E	P	G	I	A	R	C	A	E	P	E	Q	M	K	D	K	L	I	L	S	T	P	S	S	S	F	V	C	R	G	R	V	R	N	D	I	L	D	-Slit	
873	E	Y	K	E	P	G	I	A	R	C	A	G	P	G	E	M	A	D	K	L	L	L	T	T	P	S	K	K	F	T	C	Q	G	P	V	D	V	N	I	L	H	-Slit1	
906	A	K	C	N	A	C	F	E	Q	P	C	Q	N	Q	A	Q	C	V	A	L	P	Q	R	E	Y	Q	C	L	Q	P	G	Y	H	G	K	H	C	E	F	D	-Slit		
913	A	K	C	N	P	C	L	S	N	P	C	K	N	D	G	T	C	N	S	D	P	V	D	F	Y	R	C	T	C	P	Y	G	F	K	G	Q	D	C	D	V	H	-Slit1	
946	M	I	D	A	C	Y	G	N	P	C	R	N	N	A	T	C	T	V	L	E	-	-	E	G	R	F	S	C	Q	C	A	P	G	Y	T	G	A	R	C	E	D	-Slit	
953	P	I	H	A	C	I	S	N	P	C	K	H	G	G	T	C	H	L	K	E	G	E	E	D	G	F	W	C	I	C	A	D	G	F	E	G	E	N	C	E	H	-Slit1	
984	T	N	I	D	D	C	L	G	E	I	K	C	Q	N	N	A	T	C	I	D	G	V	E	S	Y	K	C	E	C	Q	P	G	F	S	G	E	F	C	D	T	D	-Slit	
993	V	N	V	D	D	C	-	E	D	N	D	C	E	N	N	S	T	C	V	D	G	I	N	N	Y	T	C	L	C	P	P	E	Y	T	G	E	L	C	E	E	H	-Slit1	
1024	K	I	Q	F	C	S	P	E	F	N	P	C	A	N	G	A	K	C	M	D	H	F	T	H	Y	S	C	D	C	Q	A	G	F	H	G	T	N	C	T	D	D	-Slit	
1032	K	L	D	F	C	A	Q	D	L	N	P	C	Q	H	D	S	K	C	I	L	T	P	K	G	F	K	C	D	C	T	P	G	Y	V	G	E	H	C	D	I	H	-Slit1	
1064	N	I	D	D	C	Q	N	H	M	C	Q	N	G	G	T	C	V	D	G	I	N	D	Y	Q	C	R	C	P	D	D	Y	T	G	K	Y	C	E	G	H	N	D	-Slit	
1072	D	F	D	D	C	Q	D	N	K	C	K	N	G	A	H	C	T	D	A	V	N	G	Y	T	C	I	C	P	E	G	Y	S	G	L	F	C	E	F	S	P	H	-Slit1	
1104	M	I	S	M	M	Y	P	Q	T	S	P	C	Q	N	H	E	C	K	H	G	V	-	C	F	Q	P	N	A	Q	G	S	D	Y	L	C	R	C	H	P	G	D	-Slit	
1112	-	-	P	M	V	L	P	R	T	S	P	C	D	N	F	D	C	Q	N	G	A	Q	C	I	-	-	V	R	I	N	E	P	I	C	Q	C	L	P	G	H	-Slit1		
1143	Y	T	G	K	W	C	E	Y	L	T	S	I	S	F	V	H	N	N	S	F	V	E	L	E	P	L	R	T	R	P	E	A	N	V	T	I	V	F	S	S	D	-Slit	
1147	Y	Q	G	E	K	C	E	K	L	V	S	V	N	F	I	N	K	E	S	Y	L	Q	I	P	S	A	K	V	R	P	Q	T	N	I	T	L	Q	I	A	T	H	-Slit1	

1183 A [E] Q N G I L M Y D [G] Q D A H L A V E L F N G R I R V S Y D V G N H P V S T M Y D-Slit
 1187 D E D S G I L L Y K G D K D H I A V E L Y R G R V R A S Y D T G S H P A S A I Y H-Slit1

1223 [S] F [E] M V A D G K Y H A V E L L A I K K N F T L R V D R G L A R S I I N E G S N D-Slit
 1227 S V E T I N D G N F H I V E L L A L D Q S L S L S V D G G N P K I I T N L S K Q H-Slit1

1263 D Y L K L T T P M F L G G L P V D P A Q Q A Y K N W Q I R N L T S F K G C M K E D-Slit
 1267 S T L N F D S P L Y V G G M P G K S N V A S L R Q A P G Q N G T S F H G C I R N H-Slit1

1303 V W I N H K L V D F G N A Q R Q Q K I T P G C A L - - - L E G E Q Q E E D D D-Slit
 1307 L Y I N S E L Q D F Q K V P M Q T G I L P G C E P C H K K V C A H G T C Q P S S H-Slit1

1339 E Q D F M D E - - - - T P H I K E E P V D P C L E N K C R R G S R C V P N S D-Slit
 1347 Q A G F T C E C Q E G W M G P L C D Q R T N D P C L G N K C V H G T - C L P I N H-Slit1

1373 N A R D G Y Q C K C K H G Q R G R Y C D Q G E G S T E P - - - - - D-Slit
 1386 A F - - S Y S C K C L E G H G G V L C D E E E D L F N P C Q A I K C K H G K C R H-Slit1

1401 - - - - - P T V T A A S - - - T C R K E Q V R E Y Y T E N D - D-Slit
 1424 L S G L G Q P Y C E C S S G Y T G D S C D R E I S C R G E R I R D Y Y Q K Q Q G H-Slit1

1423 - - - C R S R Q P L K Y A K C V G G C - G N Q C C A A K I V R R R K V R M V C S D-Slit
 1464 Y A A C Q T T K K V S R L E C R G G C A G G Q C C G P L R S K R R K Y S F E C T H-Slit1

1459 N N R K Y I K N L D I V R K C G C T K K C Y D-Slit
 1504 D G S S F V D E V E K V V K C G C T R - C V S H-Slit1